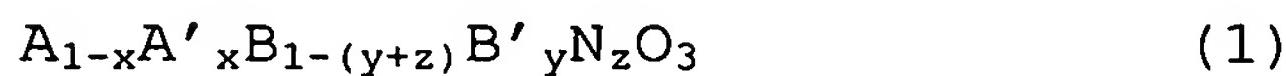


CLAIMS

1. A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula (1):



wherein A represents at least one element selected from alkaline earth metals; A' represents at least one element selected from rare earth elements; B represents at least one element selected from Ti, Zr, and Hf; B' represents at least one element selected from transition elements (excluding rare earth elements, Ti, Zr, Hf, Rh, and Pt) and Al; N represents at least one element selected from Rh and Pt; x represents an atomic ratio satisfying the following condition: $0 \leq x \leq 0.4$; y represents an atomic ratio satisfying the following condition: $0 \leq y < 0.5$; z represents an atomic ratio satisfying the following condition: $0 < z \leq 0.5$; and x represents 0 when N represents Pt alone.

2. The catalyst composition according to claim 1, wherein A represents at least one element selected from Ca, Sr, and Ba in the general formula (1).

3. The catalyst composition according to claim 2, wherein A represents Ca when N represents Pt in the general formula (1).

4. The catalyst composition according to claim 1,

wherein x represents 0 in the general formula (1).

5. The catalyst composition according to claim 1, wherein B represents at least one element selected from Ti and Zr in the general formula (1).

6. The catalyst composition according to claim 5, wherein B represents Ti when N represents Rh in the general formula (1).

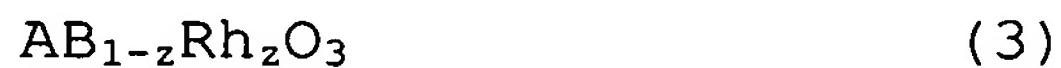
7. The catalyst composition according to claim 1, wherein y represents 0 in the general formula (1).

8. A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula (2):



wherein A represents at least one element selected from Ca, Sr and Ba; B represents at least one element selected from Ti and Zr; N represents at least one element selected from Rh and Pt; and z represents an atomic ratio satisfying the following condition: $0 < z \leq 0.5$.

9. A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula (3):



wherein A represents at least one element selected from Ca, Sr and Ba; B represents Ti; and z represents an atomic ratio satisfying the following condition: $0 < z \leq 0.5$.

10. A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula (4):



wherein A represents at least one element selected from Ca and Ba; B represents at least one element selected from Ti and Zr; and z represents an atomic ratio satisfying the following condition: $0 < z \leq 0.5$.

11. A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula (5):



wherein A represents at least one element selected from alkaline earth metals; A' represents at least one element selected from rare earth elements; B represents at least one element selected from Ti, Zr, and Hf; B' represents at least one element selected from transition elements (excluding rare earth elements, Ti, Zr, Hf, Rh, and Pt) and Al; N represents at least one element selected from Rh and Pt; b represents an atomic ratio satisfying the following condition: $0 \leq b \leq 0.4$; w represents an atomic ratio satisfying the following condition: $w > (1 - x)$; y represents an atomic ratio satisfying the following condition: $0 \leq y < 0.5$; z represents an atomic ratio satisfying the following condition: $0 < z \leq 0.5$; δ represents an oxygen excess; and x

represents 0 when N represents Pt alone.

12. The catalyst composition according to claim 11, wherein A represents at least one element selected from Ca, Sr, and Ba in the general formula (5).

13. The catalyst composition according to claim 12, wherein A represents Ca when N represents Pt in the general formula (5).

14. The catalyst composition according to claim 11, wherein x represents 0 in the general formula (5).

15. The catalyst composition according to claim 11, wherein B represents at least one element selected from Ti and Zr in the general formula (5).

16. The catalyst composition according to claim 15, wherein B represents Ti when N represents Rh in the general formula (5).

17. The catalyst composition according to claim 11, wherein y represents 0 in the general formula (5).

18. A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula (6):



wherein A represents at least one element selected from Ca, Sr and Ba; B represents at least one element selected from Ti and Zr; N represents at least one element selected from Rh and Pt; v represents an atomic ratio satisfying the following

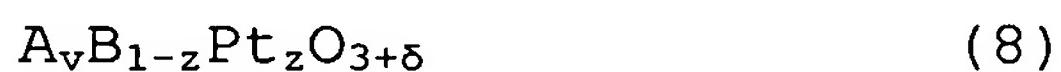
condition: $1 < v$; z represents an atomic ratio satisfying the following condition: $0 < z \leq 0.5$; and δ represents an oxygen excess.

19. A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula (7):



wherein A represents at least one element selected from Ca, Sr and Ba; B represents Ti; v represents an atomic ratio satisfying the following condition: $1 < v$; z represents an atomic ratio satisfying the following condition: $0 < z \leq 0.5$; and δ represents an oxygen excess.

20. A catalyst composition comprising a perovskite-type composite oxide represented by the following general formula (8):



wherein A represents at least one element selected from Ca and Ba; B represents at least one element selected from Ti and Zr; v represents an atomic ratio satisfying the following condition: $1 < v$; z represents an atomic ratio satisfying the following condition: $0 < z \leq 0.5$; and δ represents an oxygen excess.